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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/463,801	07/28/2000	Holger Lowe	678-99	6812
27569	7590	05/18/2006	EXAMINER	
PAUL AND PAUL 2000 MARKET STREET SUITE 2900 PHILADELPHIA, PA 19103			HENDRICKS, KEITH D	
			ART UNIT	PAPER NUMBER
			1761	

DATE MAILED: 05/18/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	Application No.	Applicant(s)	
	09/463,801	LOWE ET AL.	
	Examiner	Art Unit	
	Keith Hendricks	1761	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 24 April 2002.  
 2a) ☒ This action is FINAL. 2b) ☐ This action is non-final.  
 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-21 is/are pending in the application.  
 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.  
 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.  
 6) ☒ Claim(s) 1-21 is/are rejected.  
 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.  
 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☒ The specification is objected to by the Examiner.  
 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  
 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
 a) ☐ All b) ☐ Some \* c) ☐ None of:  
 1. ☐ Certified copies of the priority documents have been received.  
 2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
 \* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>7/2000 &amp; 9/2000</u> . | 6) <input type="checkbox"/> Other: _____  |

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## DETAILED ACTION

**NOTE:** The examiner of this application has changed. See examiner info provided at the end of this Office action.

The substitute specification and claims (claim 1) filed July 28, 2000, have been entered and considered.

### Examiner's Note:

*In the response of April 24, 2002 (May 2002), applicant states that the (previous) examiner appears to have mistakenly examined the original specification and not the substitute specification submitted on July 28, 2000. Applicant states that "the substitute specification is believed to address the various issues raised by the Examiner in the Examiner's Action of March 7, 2002." No further explanation is provided. Applicant did not directly and specifically address the rejections of record, especially with regard to the claims. This was noted in the Notice of Non-Responsive Reply mailed to applicant in July 2002, at which time applicant was given a one-month period of time to reply. Again, applicant did not take advantage of this opportunity to specifically address the outstanding rejections, and thus they are maintained for the reasons of record.*

### Specification

i) The substitute specification filed July 28, 2000, has been entered and considered. As can best be ascertained, the changes to the specification from the originally-filed specification are found at page 1 only. These changes appear to be handwritten and are unclear with respect to the actual changes desired and necessary, such that a clear reading of the specification may be possible. In order to provide a clean copy to facilitate printing of any resultant Patent, it is strongly suggested and requested that applicant provide a properly-amended and typed substitute page 1 of the specification, such that the changes may be clearly seen.

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ii) The following guidelines illustrate the preferred layout for the specification of a utility application. These guidelines are suggested for the applicant's use.

As stated at part (g), below, the specification must contain a brief description of each of the drawings contained in the application. See MPEP § 608.01(f). The substitute specification as submitted does not contain a reference to and brief description of the drawing(s) as set forth in 37 CFR 1.74.

### **Arrangement of the Specification**

As provided in 37 CFR 1.77(b), the specification of a utility application should include the following sections in order. Each of the lettered items should appear in upper case, without underlining or bold type, as a section heading. If no text follows the section heading, the phrase "Not Applicable" should follow the section heading:

- (a) TITLE OF THE INVENTION.
- (b) CROSS-REFERENCE TO RELATED APPLICATIONS.
- (c) STATEMENT REGARDING FEDERALLY SPONSORED RESEARCH OR DEVELOPMENT.
- (d) INCORPORATION-BY-REFERENCE OF MATERIAL SUBMITTED ON A COMPACT DISC (See 37 CFR 1.52(e)(5) and MPEP 608.05. Computer program listings (37 CFR 1.96(c)), "Sequence Listings" (37 CFR 1.821(c)), and tables having more than 50 pages of text are permitted to be submitted on compact discs.) or REFERENCE TO A "MICROFICHE APPENDIX" (See MPEP § 608.05(a). "Microfiche Appendices" were accepted by the Office until March 1, 2001.)
- (e) BACKGROUND OF THE INVENTION.
  - (1) Field of the Invention.
  - (2) Description of Related Art including information disclosed under 37 CFR 1.97 and 1.98.
- (f) BRIEF SUMMARY OF THE INVENTION.
- (g) BRIEF DESCRIPTION OF THE SEVERAL VIEWS OF THE DRAWING(S).**
- (h) DETAILED DESCRIPTION OF THE INVENTION.
- (i) CLAIM OR CLAIMS (commencing on a separate sheet).
- (j) ABSTRACT OF THE DISCLOSURE (commencing on a separate sheet).
- (k) SEQUENCE LISTING (See MPEP § 2424 and 37 CFR 1.821-1.825. A "Sequence Listing" is required on paper if the application discloses a nucleotide or amino acid sequence as defined in 37 CFR 1.821(a) and if the required "Sequence Listing" is not submitted as an electronic document on compact disc).

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***Claim Rejections - 35 USC § 112***

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1-21 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

*The following rejections are maintained from the first Office action of March 07, 2002. In addition to these specific rejections, applicant is strongly encouraged to review the claims for grammar, proper antecedent basis and adequate support in the specification.*

The claims are generally narrative and indefinite, failing to conform with current U.S. practice. They appear to be a literal translation into English from a foreign document and are replete with grammatical and idiomatic errors.

As previously stated, all claims presently rely upon the phrase "characterized in that". This should be changed to one of the accepted preamble phrases, e.g., "comprising," "consisting essentially of" or "consisting of," as set forth in the MPEP with regard to accepted U.S. Patent language and practice.

Claim 1 remains indefinite because it contains the word "especially" in the preamble phrase and it is not clear if this is a positive limitation in the claim.

Claim 1 remains indefinite because the metes and bounds of the phrase "layers do not exhibit any cells or enzymes enclosed in the inner part of the capsule" is unknown.

Claim 1 remains indefinite because there is no antecedent basis for the phrases "the inner capsule," "the inner capsule cells," "the output product," "the products converted," and "the inner part of the capsule." Regarding the lack of antecedent basis for "the capsule" phrases, it is unclear if the term "the capsule", refers to "the microcapsule". It is suggested that the claims be amended to maintain consistency throughout.

Claim 1 remains indefinite because it is unknown how "two layers" are physically arranged so that "each layer completely encloses all of the layers . . . below it." The claim is incomplete for omitting

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essential structural cooperative relationships of elements, such omission amounting to a gap between the necessary structural connections. See MPEP § 2172.01.

Claim 4 remains indefinite because the metes and bounds of the phrase “the matrix shows an alginate compound of a polyvalent cation” (formerly “the matrix shows an alginate bond”) is unknown. It is unclear as to what is encompassed and intended by the term “shows”, and how this is to denote a positive, functional property of the claimed invention.

Claim 6 remains indefinite because the it is not clear how the “matrix . . . is liquefied.” The claim is incomplete for omitting essential structural cooperative relationships of elements, such omission amounting to a gap between the necessary structural connections. See MPEP § 2172.01.

Claim 8 remains indefinite because there is no antecedent basis for the phrase “the active substances and/or microorganisms found outside the microcapsule.”

Further regarding claim 8, the metes and bounds of the phrase “which impair the activity of the cells or enzymes” is unknown. It is unclear to what degree these may be “impaired”, whether this denotes a complete loss of activity, or a certain degree.

Claim 14 remains indefinite because the metes and bounds of the phrase “substance that increases the activity of the cells and/or enzymes” is unknown. It is unclear as to (a) which activity or activities are increased, and (b) to what degree such an “increase” encompasses.

Claims 9 and 21 remain indefinite due to the term “preferably”. This renders the claims indefinite because it is unclear whether the limitations following the phrase are part of the claimed invention. See MPEP § 2173.05(d).

Claim 21 remains indefinite because the metes and bounds of the phrase “high yields” is not positively set forth in the claims or specification.

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***Prior Art***

As previously stated on the record, an examination of this application reveals that it includes terminology that is so different from that which is generally accepted in the art to which this invention pertains that it renders the claims unsearchable and therefore, a proper search of the prior art cannot be made at this time.

***Conclusion***

**THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Keith Hendricks whose telephone number is (571) 272-1401. The examiner can normally be reached on M-F (8:30am-6pm); First Friday off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Milton Cano can be reached on (571) 272-1398. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

  
**KEITH HENDRICKS**  
**PRIMARY EXAMINER**